

MOTION VIDEO CHOLESTERIC DISPLAYS

ABSTRACT:

The present invention relates to cholesteric liquid crystal display, especially, to a passive motion video cholesteric liquid crystal display. The display provides not only a video speed with full color moving picture when supplying electric field, but also a video-rate response, long-term memory and high-resolution image in the absence of electric field. The field-induced nematic texture has been denoted as an optical state and cholesteric focal conic texture as another optical state during the video rate display mode. And the cholesteric planar texture has been denoted as an optical state and cholesteric focal conic texture as another during the storage-type display mode. The video rate addressing is accomplished by a narrow pulse scanning at a speed of 30-60 microseconds per row. The novel display mode and driving means deliver a passive display with a property that the display not only looks like a TV or a computer monitor dynamically but also like a permanent picture or prints statically.